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The psychological contract of knowledge workers

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Abstract

Purpose: This paper explores whether the concept of psychological contracts underpinned by relational/transactional exchanges provides an adequate description of knowledge workers' contracts.

Methodology: The research approach uses interviews with 10 scientists from within a pre-eminent Australian scientific research and development organisation, the Commonwealth Scientific & Industrial Research Organisation (CSIRO).

Findings: The research strong evidence of an ideological currency within the psychological contract for this set of knowledge workers.

Implications: The research raises questions over the role of normative occupation-specific beliefs about work, and the sharing of common currency elements by individuals in the same organization within the same occupation. The analysis lends support to calls in the literature for a reconsideration of the transactional/relational interpretative framework that underpins the psychological contract.

Keywords: psychological contract, knowledge workers, work ideology.

Introduction

Within the resource-based view of the firm there is increasing recognition of the potential of human capital to make a substantial and lasting impact on sustainable competitive advantage (Boxall & Purcell, 2003; Wright, Dunford & Snell, 2001). This coincides with the growth of the knowledge economy focusing on learning and knowledge management as central outputs (Thurow, 1999), and the consequent “professionalisation” of the workforce (Millward & Brewerton, 2000). To realise the potential of their human capital, organizations require HR strategies and practices informed by an understanding of the role of professional work ideologies in the psychological contract. Such an understanding is essential in managing the employment expectations of “professionals” in the workplace, and the impact of unmet expectations on employee attitudes and behaviour.

Managing the psychological contract

The “psychological contract” concept deals with the pattern of unwritten and implied beliefs held by the employee and organization about what each should offer, and what each is obligated to provide, in the exchange relations that operate between them. In line with the majority of research to date, this study adopts Rousseau’s (1995) cognitive-perceptual definition of the concept (see also Rousseau, 1989, 1998a, 2001; see Millward and Brewerton, 2000, for a review of the concept’s development). Much of the original development of this approach has come from Rousseau, and while some elements have been challenged (e.g. Guest, 1998a, 1998b), it is supported by a substantial body of theoretical and empirical research by other scholars. According to Rousseau, a psychological contract forms when “an individual perceives that contributions he or she makes obligate the organization to

reciprocity (or vice versa)”, and it is the belief in this obligation of reciprocity, although unilateral, that constitutes the contract. (1989: 124).

The consensus in the literature favours operationalising the psychological contract using a bipolar continuum from “transactional” to “relational” for classifying contract content and generic contract features, first articulated by Rousseau (1995). In line with the notions of economic and socio-emotional transaction found in social exchange theory (Blau, 1964), Rousseau (1995) links content character directly to generic contract features to describe four contract types. Firstly, the *transactional* type has primarily economic terms, and is short-term in focus with explicit performance terms. Secondly, there is the *relational* type that has primarily emotional terms, long-term commitments by both parties, and non-explicit performance terms. The *balanced (hybrid)* type has a uniquely complex combinations of transactional and relational terms, and aims at a long-term relationship while at the same time specifying performance requirements. It is becoming commonplace in today’s workplace. The fourth type is the *transitional* contract that offers no guarantees because of instability in the organization’s environment and conditions. (Rousseau, 1995).

The transactional and relational contract types are the foundation classifications in Rousseau’s framework. The currency of transactional exchange is reasonably explicit, short-term and economic in nature; such exchange assumes rational and self-interested parties, and does not result in ongoing interdependence. Relational exchange is more complex and promotes interdependence through a commitment to the collective interest over self-interest; its currency is less clear, evolves over time, and involves long-term investments from which withdrawal is difficult (Rousseau & McLean Parks, 1993).

By linking the nature of a promise to the way in which individuals respond in the event of its non-delivery by the organization (Herriot & Pemberton, 1996; Morrison & Robinson, 1997; Turnley & Feldman, 1999), Rousseau's bipolar framework has contributed significantly to our understanding of how and why individuals respond to change in the employment relationship (Anderson & Schalk, 1998). However, a view is developing that ongoing change in the employment context may have rendered the framework too simplistic and inadequate for understanding the increasingly complex relationship between contract terms and features and response to perceived breaches.

Burr and Thomson contend that a new form of contract is emerging that has a "transpersonal perspective, an evaluation not only of "what's in it for me" (transactional) and "what's in it for us" (relational), but also of "what is the fit between me, us, and the rest of society" (2002: 7). Thompson and Bunderson (2003) suggest this new development – which they label the "ideology-infused" contract – coincides with the adoption of cause-driven missions by organizations seeking to establish a broader explicit connection with their environments in order to induce greater employee contributions.

Burr and Thomson contend that the increasing importance to the individual of perceived value fit internal and external to the organization must be recognised, and that the transactional/relational framework with its roots "very much in the beliefs and values domain of the individual with regard to the organization" (2002: 4) needs to be reconfigured to allow this to happen. To this end, they propose its expansion to include the notion of a so-called "transpersonal" perspective that recognises the "connectivity of people and organizations to something outside themselves" (Burr & Thomson, 2002: 1). In terms of generic features,

contracts with a primarily transpersonal perspective will have an intrinsic and extrinsic focus. They will be subjective, dynamic, flexible, open-ended, of changing duration, and encompass the “me”, the “we” and the “all”. According to Burr and Thomson, (2002) content terms will reflect a concern for: the community; service to humanity; connectedness to the environment; compassion and care; and voluntary selfless work.

Thompson and Bunderson (2003) concentrate on the bipolar framework’s inherent premise that the focus or currency of the psychological contract is either economic or socio-emotional in nature, and develop a case for ideology as a third focus. Drawing on the idea that in social exchange, ideological rewards can be effective inducements, because “helping to advance cherished ideals is intrinsically rewarding” (Blau, 1964: 239), Thompson and Bunderson argue that “psychological contracts may be premised on ‘ideological rewards’, and that espousal of a cause can represent a distinct inducement to elicit employee contributions and commitment” (2003: 571). They define ideological currency as “credible commitments to pursue a valued cause or principle (not limited to self-interest) that are implicitly exchanged at the nexus of the individual/organization relationship” (Thompson & Bunderson, 2003). Such commitments reflect the individual’s belief that the organization will provide a mechanism and supportive environment through which the individual can contribute to a highly valued cause (e.g. occupational ideals such as professional autonomy and discretion).

The attraction of incorporating a “transpersonal” perspective (Burr & Thomson, 2002) and the introduction of “ideological currency” (Thompson & Bunderson, 2003) into the psychological contract concept lies in its potential to provide new insights into why individuals identify with their employing organization. If contemporary changes in organizations have “effectively

hollowed out” the potential for individuals to identify with the organization, as suggested by Rousseau (1998b), ideology may be the key to better understanding how the individual’s need for meaning is met, and the processes and factors that shape and link identification with work. The incorporation of an ideological component also opens up the possibility of deriving new explanations for the ways in which individuals respond to contract breach by the organization. For example, the individual’s perception of breach by the organization of an ideological commitment need not produce a negative personal impact in the way implied by a transactional/relational interpretative framework based only on economic and socio-emotional currencies.

The case of the knowledge worker

Knowledge workers are unlike previous generations of worker, not only because of their access to educational opportunities, but because in knowledge organisations they own the means of production i.e. knowledge that is located in brains, dialogue and symbols (Blackler, 1995; Drucker, 1993). As a consequence, productivity is now, more than ever, dependent on the contributions of specialist knowledge workers (Tovstiga, 1999).

Knowledge work - the acquisition, creation, packaging or application of knowledge - is characterised by variety and exception rather than routine, and is performed by professional workers with a high level of expertise (Davenport, Jarvenpaa, & Beers, 1996). Drucker (1999) explains that making knowledge workers more productive requires attitudinal changes entailing the involvement and understanding of the entire organisation not just the worker themselves. Specifically, knowledge workers must be able to determine the focus of their task, and have autonomy and responsibility for their own productivity. Their tasks have to

include a commitment to continuing innovation, and provide for continuous learning. There needs to be a commitment to quality and treating the knowledge worker as an asset rather than as a cost. When these factors are not an integral part of the organisational context, the productivity of the knowledge worker is at risk (Drucker, 1999).

Theoretically these arguments are appealing but there has been little empirical research investigating the relationship between employer and knowledge worker. Accordingly, the following exploration of changes within the Commonwealth Scientific and Industrial Research Organisation (CSIRO) attempts to explore the basis of the psychological contract of knowledge workers for that organisation.

Changes at CSIRO

CSIRO is one of the world's most diverse scientific research organisations with an international reputation for its scientific achievements. It has 22 research divisions, based in all states of Australia, which are largely organised around scientific disciplines. Of its approximately 6600 staff, around 1650 are research scientists performing research and development in agribusiness, environment and natural resources, information technology, infrastructure and services, minerals and energy and manufacturing (CSIRO, 2003). The commitment to research and development at CSIRO provides a unique example of an organisation that exemplifies the features of a knowledge worker environment. It is also an organisation that has been subject to major change impacting on the nature of employee expectations.

Established in 1926, CSIRO is a government-funded organisation committed to scientific research that provides independent expert advice to Government and the Australian public.

Until the 1990s, the organisation had essentially been free to pursue projects that it considered to be in the 'common good'. In 1995, however, the Australian federal government's requirement that CSIRO adopt a more commercial focus and generate 30 per cent of its income via commercial projects became one of six performance indicators agreed for the organization (CSIRO, 1996). Concern amongst CSIRO staff about the effect of funding changes was ongoing. On the Radio National Science Show, broadcast on 5/10/2002, Dr. Whitten, a retired Chief of the CSIRO Division of Entomology, claimed that the funding changes and new restrictions on scientific research activity had resulted in palpable increased levels of stress amongst the scientists. Furthermore, he predicted, "untold irreparable damage will be done and the organisation that we're finishing up with will be one that people won't worry too much about keeping".

The aim of the current research is to review the impact of these changes in light of the current debate about an appropriate work context for the knowledge worker. With reference to the psychological contract literature, the research question becomes: whether the binary characterisation of the contract terms as being either economic or socio-emotional in nature is sufficient to explain the perceived psychological contract of knowledge workers within CSIRO and whether there is evidence of a ideological component of the contract?

Research methodology

The complexity of issues under investigation required a rich data source. Semi-structured interviews provide the best means of data collection because they allow appropriate exploration of key issues (Neuman, 2000; Babbie, 1992). To ensure consistency with the literature a 17 item scale of psychological contract breach, based on measures established in

the literature, was used (Coyle-Shapiro & Kessler, 2002; Lester, Turnley, Bloodgood & Bolino, 2002; Turnley & Feldman, 2000). As this is exploratory qualitative research, the researcher tape-recorded the explanations given for each score and it is these comments that form the basis of the analysis. In addition, a second set of questions concerned with organisational commitment, using the updated Myer and Allen (1991) continuance and affective commitment scale (see Myer & Allen, 1997) was used. The schedule was developed and then tested in a pilot study before finalisation. An experienced professional interviewer was used to conduct the interviews. The tape recordings were then subsequently transcribed and analysed using QSR NUD*IST 5¹ software.

The sample consisted of 10 research scientists drawn from one CSIRO research division who were operating as project managers with some autonomy in the way they conducted their work. Of these 3 were female and 7 were male. The longest period of CSIRO employment was 30 years and the minimum 10. The level of experience reflected in this sample allowed us to explore a full range of issues for these knowledge workers. For the purpose of this exploratory research younger scientists were defined as being with CSIRO between 10 and 15 years, while older scientists were defined as being with the organisation for 20 or more years.

Results

The interviews began with a general question about the nature and extent of perceived changes that had taken place at CSIRO in the course of the interviewee's career. All of the interviewees either noted the commitment to commercialisation or the resultant structural changes as key features in their perceptions of organisational life. Interviewees were then

¹ QSR NUD*IST is a registered trademark of Qualitative Solutions and Research Pty Ltd., Box 171 La Trobe University PO, Victoria, Australia, 3083.

asked to view the items listed on the psychological contract survey and comment on the level of fulfilment of each of the items.

Ideological Component of the Psychological Contract

The quotes provided below are indicative of the responses to items that elicited the most reaction from the scientists. Two of these items, for example, ‘the freedom to do my job well’ and ‘enjoyable work’, prompted responses about the nature of the science being conducted and the type of knowledge that was being generated. Concerns shared by both old and young scientists suggested a common ideological component of the contract. These included the need for public availability of the knowledge produced (greater for younger scientists), the possible ongoing generation of new knowledge (greater for older scientists), commitment to ‘public good’ projects, and Australia’s access to international research developments.

We have really become consultants, contractors I guess you could say. The possibility of generating meaningful original science and involvement in ‘public good’ research is getting harder and harder to achieve.

(Interviewee # 9 -older scientist)

My main frustration is that the knowledge that we generate is no longer really in the public domain - only the groups that we answer to really get the benefit of the science.

(Interviewee #5- younger scientist)

Transactional and Relational views of the “Ideology-infused” Psychological Contract

Younger scientists tended to have a more transactional view of their contract. In general they enjoyed working with their project teams and valued the collegiality but were also much more

pragmatic about leaving the research and taking up new projects. Their commitment to the organisation itself was limited.

I like working here but I don't feel restricted to this option. If something else came up that was interesting I would certainly be open to that possibility.

(Interviewee #8)

Older scientists expressed concern at this:

I also get very concerned about younger scientists who are working on project work for an outside interest. They don't get around to publishing their ideas because they don't have the time. This means that the knowledge base is not being built up and there is a short-term focus on everything.

(Interviewee # 9)

They continued to value the relational part of their contract but only as long as the organisation's requirements were congruent with their own ideology.

I actually just turned down another job that would have meant great financial returns. But I have a lot personally invested in the research that I have done here and I am very committed to it.

(Interviewee # 1)

The older scientists identified some of the drivers of changes in their psychological contracts.

We need to focus less on administration and restructuring and remember what we are here for - science and research.

(Interviewee # 9)

Many of the older scientists clearly identified that the perceived changes in their contract are sources of disaffection and withdrawal of commitment. Their perceptions had moved to be more transactional towards the organisation while retaining a 'passion' for their science, but not the non-science components of their work.

The thing that keeps me here? The science

(Interviewee # 4)

Someone asked me the other day if I would go out of my way to do something for

CSIRO and I just laughed. I would have at one time but not any more.

(Interviewee #1)

Discussion

The results indicate that the scientists are concerned about the nature of scientific output and knowledge generation at CSIRO. The issues of concern are more ideological and societal based in nature than transactional or relational associated with the organisation. The scientists responded most strongly to the psychological contract questionnaire items, “the freedom to do my job well”, “enjoyable work” and “resources needed to perform the job”. The older scientists were particularly concerned about the reduction of autonomy in the knowledge creation process, connecting it with failures to generate and publish knowledge in new areas and research issues that were associated with the ‘public good’. They were also concerned about Australia’s profile in international research activity. While younger scientists were more concerned about ‘resources needed to complete the job’ they also shared concerns about the ongoing development and publication of knowledge, and the limited public access to technological developments.

These results help clarify key features in the psychological contract of the knowledge worker. Drucker (1999) highlights the link between productivity and the principles of professional autonomy and responsibility for task direction and productivity i.e. principles that allow an ideological component of the psychological contract to be created by knowledge workers. According to the older scientists interviewed these principles operated in CSIRO in the past but developments in the last ten years have reduced their significance. The strong response to

this development indicates that the principles of professional autonomy and responsibility are key factors in the psychological contract, especially for scientists who have had longer careers.

A further factor that arose from the interviews, not identified by Drucker (1999), is the need for the knowledge worker to make a sustained and valued contribution to the relevant body of knowledge i.e. a contribution that transcends the organization. Concomitant with this need is the expectation the organization will provide the opportunity to make that contribution. Scientists commented with concern that organizational change had meant that much of the knowledge they create is not being effectively published and consequently their ability to contribute to the advancement of Australia's scientific base is stifled. This commitment to the collective development of ideas and the body of knowledge itself, along with public access of knowledge, appears to be an enduring factor regardless of tenure.

The beliefs regarding professional autonomy and responsibility, making a sustained and valued contribution to the relevant body of knowledge, and possessing a common commitment to the wider knowledge base appear better understood in terms of the primacy of ideological elements of the psychological contract (Burr & Thomson, 2002; Thompson & Bunderson, 2003). That these elements appear to be fundamental to the group of scientists interviewed suggests the possibility that they may form core content terms within the psychological contract. It also suggests that any relational elements in the psychological contract may be artefacts of congruence between organisational aims and scientists' ideological stance.

Limitations

While the exploratory approach provided the flexibility needed to identify and clarify key components in the psychological contract, and qualitative methods enabled the depth and richness of the idiosyncratic perspectives of the study participants to be captured, the research method used in the study has some inherent limitations. The study findings need to be assessed in the light of these limitations.

First, as a consequence of the convenience sampling technique used in the study the sample of scientists is neither representative of the scientific research profession or of knowledge workers generally. As a profession of long standing, scientific research is characterised by a well-developed set of normative work values and beliefs that underpin a strong sense of collective identity shared by its members. Some knowledge-based occupations that have emerged more recently, for example in the IT field industry, have yet to establish similar attributes. Alternative perspectives might therefore be expected to emerge by sampling a range of professions. A larger more diverse sample might provide important information about the ways in which differences in professional cultures, structures, and histories impact on the beliefs of knowledge workers regarding their psychological contracts.

Second, the research setting selected for this exploratory study was limited to one public sector research and development organization. CSIRO's role as the major national provider of publicly-funded research capability and the largest single employer of scientific knowledge workers in Australia, arguably makes it unique in the Australian context. Consequently, the principles of “public service” and “public good”, which historically have underpinned and shaped CSIRO's organizational goals and objectives, may have led to the sampled scientists being more sensitive to ideological breaches than scientists working in private sector R & D

organizations. Also, in line with psychological contract research, the major funding and organizational restructurings CSIRO has experienced in recent years are likely to have shaped the perceptions of the sampled scientists significantly. Hence, using a broader sample of organizational settings, embracing the private sector and not-for-profit organizations, might shed further light on the transferability of this study's findings.

Third, the small sample size meant the analysis could not be meaningfully controlled for a range of demographic variables that previous psychological contract research has shown may attenuate reactions to psychological contract breach and fulfilment. Nevertheless the qualitative interview data gathered for this study hints at possible merit in exploring ideology-infused psychological contracts in light of a broader range of demographic factors, for example age, gender, employment tenure and status, and years of service with current employing organization. Cross-cultural variables may also be worthy of consideration.

Finally, although in the case of this study exploratory and qualitative methods were considered most appropriate, future research might also seek to explore these issues using alternative research designs, sampling strategies and quantitative data collection and analysis techniques.

Conclusions

Echoing Drucker's (1999) descriptions of the factors that underline knowledge worker productivity, the interviews raise the possibility that content terms of the psychological contract for the CSIRO scientists may directly reflect ideological issues. Freedom to select the focus of work, autonomy to decide how to conduct the work, organisational resources to complete the task to a satisfactory standard, and the organisation's commitment to the

development of knowledge as a value independent of business needs, occurred in this research as key expectations in the scientists' psychological contract. The need to make a recorded contribution to the body of professional knowledge and to the 'public good' was also evident in the scientists' view of their work.

It is argued that although both transactional and relational components of the psychological contract are evident, scientists' concerns cannot be fitted neatly within the relational/transactional characterisation of the contract. The inducement to contribute seems to tap into ideological rewards i.e. the rewards associated with being involved with some intangible principle or with benefiting society, or some segment of it. In fact, there appears to be evidence that for some knowledge workers at least the relational part of the contract exists only so long as there is congruence between their own ideology and the organisation's aims. The maintenance of a focus on the advancement of science that transcends the organization, and a reduced commitment by scientists to the organisation itself, is consistent with the suggestion that knowledge workers often direct their loyalty towards their careers and profession rather than to their organization (Holland, Hecker & Steen, 2002).

This exploratory study lends support to calls in the psychological contract for the reconsideration of the cognitive-perceptual definition of the concept and its transactional/relational interpretative framework. It suggests work ideologies may be significant in the psychological contract, particularly for professional employees. That many individuals seem to be refocusing their allegiance and career aspirations away from the organization onto their occupations to anchor their self-esteem and identity in the workplace

makes the role of professional ideologies in the psychological contracts worthy of further examination.

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Peter Holland, (PhD) is senior lecturer in Human Resource Management and Employee Relations in the Department of Management and researcher in the Australian Centre for Research in Employment and Work at Monash University. His major research interest include managing knowledge workers, new pattern of work and monitoring and surveillance in the workplace. He has published 4 books and numerous journal articles, monographs and book chapters on a variety of human resource management and employee relations issues.

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